

voice trunks identified by virtual channels issued only by the front-end multimedia messaging exchanges and not by the network exchange.

13. A cluster according to claim **10**, wherein each back-end exchange includes mutually exclusive corresponding multimedia interfaces connected by voice trunks to the network exchange.

14. A method of clustering multimedia messaging systems in communication with a telecommunications network via real network channels, comprising the steps of:

- generating a multimedia message at a back-end multimedia messaging exchange;
- communicating a virtual channel from a front-end messaging exchange to the back-end messaging exchange;
- communicating the multimedia message from the back-end messaging exchange to a network exchange on the virtual channel;
- communicating a cross-connect signal from the front-end messaging exchange to the network exchange identifying a translation from the virtual channel to a real network channel;
- crossing the multimedia message to the real network channel using the identified cross-connect signal; and
- communicating the multimedia message to the telecommunications network on the real network channel.

15. A method according to claim **14**, further comprising the steps of:

- communicating a subscriber list from the back-end multimedia messaging exchange to the front-end multimedia messaging exchange, and loading the subscriber list into a lookup table at the front-end multimedia messaging exchange for use in generating said cross-connect signal.

16. A method according to claim **14**, wherein multimedia messages are generated at a plurality of back-end multimedia messaging exchanges each of which receives said virtual channel communications and communicates said messages on respective ones of said virtual channels to the network exchange.

17. A method of communicating with a telecommunications network using multiple clusters of multimedia messaging exchanges, comprising the steps of:

- providing a first network exchange in communication with the telecommunications network over real network channels;
- providing first redundant front end multimedia messaging exchanges in communication with the first network exchange via real network channel signal links;
- providing a second network exchange in communication with the telephonic communications network over real network channels;
- providing second redundant front end multimedia messaging exchanges in communication with the second network exchange via real network channel signal links;
- providing a central multimedia messaging exchange;
- providing a plurality of back-end messaging exchanges each in communication with both the first and second network exchanges over trunk lines and each in communication with the central multimedia messaging exchange;
- communicating virtual channel identifiers from the central multimedia messaging exchange to the back-end messaging exchanges on which said back-end messaging exchanges communicate messages over said trunk lines to at least one of the first and second network exchanges;

communicating translation signals to the first and second network exchanges to transfer the messages received on said trunk lines from the virtual channels to the real network channels; and

communicating the messages from the network exchanges to the telecommunications network over the real network channels.

18. Multiple clusters of multimedia messaging exchanges for communicating with a telecommunications network, comprising:

- a first network exchange in communication with the telecommunications network over real network channels;
- first redundant front end multimedia messaging exchanges in communication with the first network exchange via real network channel signaling links;
- a second network exchange in communication with the telecommunications network over real network channels;
- second redundant front end multimedia messaging exchanges in communication with the second network exchange via real network channel signal links;
- a central multimedia messaging exchange;
- a plurality of back-end messaging exchanges each in communication with both the first and second network exchanges over trunk lines and each in communication with the central multimedia messaging exchange;

wherein the central multimedia messaging exchange communicates virtual channel identifiers to the back-end messaging exchanges on which said back-end messaging exchanges communicate messages over said trunk lines to at least one of the first and second network exchanges, and wherein the first and second network exchanges communicate cross-connect signals to the network exchange for transferring the messages received on said trunk lines from virtual channels corresponding to the virtual channel identifiers to the real network channels, and wherein the network exchanges communicate the messages from the trunk lines to the telecommunications network over the real network channels.

19. Multiple clusters according to claim **18**, wherein the first and second redundant front-end multimedia messaging exchanges include virtual line exchange modules in a one-to-one correspondence with the plurality of back-end multimedia message exchanges, said virtual line exchange modules for communicating virtual channel switching signals to the corresponding back-end multimedia messaging exchanges.

20. Multiple clusters according to claim **19**, wherein the virtual line exchange module communicates with a corresponding network circuit switching module located in the corresponding back-end multimedia exchanges.

21. Multiple clusters according to claim **20**, wherein the network circuit switching module operates under the same software image whether in the cluster or in a stand-alone mode of the corresponding back-end multimedia messaging exchange.

22. Multiple clusters according to claim **21**, wherein the virtual channel switching signals also carry subscriber list information from the back-end multimedia messaging exchanges to the corresponding virtual line exchange modules.

23. Multiple clusters according to claim **20** wherein each pair of 1) virtual line exchange module and 2) corresponding network circuit switching module are assigned a predetermined group of said virtual channels.